a method of detecting a waveform having a portion thereof which repeats at a predetermined interval by delaying the received waveform by an integer number of the predetermined intervals.

Carsello discloses a variation on the well known baud rate detector of the prior art. Carsello describes combining a received "symbol" with a delayed version of itself to search for peaks/zero crossings related to the baud rate. Because Carsello is directed to determining the baud rate of the received signal, and because there is no baud rate information to be obtained if adjacent received signals are the same, Carsello teaches that the repeated adjacent symbol must be eliminated. (Col. 4, ll. 32-39). Note that when Carsello describes the term "repeated symbols", it is referring to randomly received adjacent symbols which are identical. For example, subtractor 318, absolute function 320 threshold detector 322 and AND gate 316 prevent the detection of a zero crossing when adjacent symbols are identical (see points 410 in Fig. 4). Likewise, the flowchart illustrated in Fig 9. describes the process the baud rate detector uses to prevent the detection of a zero crossing when adjacent symbols are identical in boxes 920, 922, 924 and 926. There is no disclosure in Carsello of receiving a signal waveform having a portion which repeats at a predetermined interval, and delaying the received signal an integer number of predetermined intervals in order to detect the received signal. Additionally, there is no teaching to use the portion of a waveform which repeats at a predetermined interval advantageously to detect the waveform. Rather, Carsello teaches that when a randomly received symbol is identical to the previously received signal the repeated symbol must be eliminated.

Reconsideration and allowance of Claims 1, 4-6, 10, 11, 15-19, 21 and 23 is requested.

The examiner has requested that the applicant address the disclosure of Carsello with respect to Figure 10. Figure 10 is a continuation of the flowchart illustrated in Fig 9. describing the process the baud rate detector uses after the repeated symbols are eliminated. Boxes 1002 to 1008 describe the processing of the baud rate detector illustrated in Fig. 7 using the parameters shown in Figs. 5 and 6. Box 1002 describes processing of a predetermined portion of the baseband signal after the repeated symbols have been eliminated. Note that the predetermined portion is described for example as being 30 msec and has no relevance to the predetermined interval between repeated portions of the waveform claimed in the present application. Additionally, the value N in Box 1002 is used to determine the peak metric which is defined as the largest edge count plus N counts adjacent to the largest count. N is defined to be a predetermined integer equal to or greater than zero, which has been determined for simulations to be equal to 2 when the number of sampling phases per symbol equals 10. (Col. 5, ll. 11-20). Note that N has no relevance to the integer number of predetermined intervals that the received signal is delayed as claimed in the present application.

Thus, Carsello does not disclose each of the limitations recited in the independent claims and therefore reconsideration and allowance of Claims 1-19 and 21-23 is hereby requested.

Respectfully submitted

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